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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,296	09/22/2003	Akira Fukushima	117161	5634
25944	7590	10/05/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320				COMAS, YAHVEH
ART UNIT		PAPER NUMBER		
		2834		

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/665,296	FUKUSHIMA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Yahveh Comas	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1 and 28 is/are rejected.
- 7) Claim(s) 2-27 and 29-54 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                                        |                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                                   | Paper No(s)/Mail Date: ____ .                                               |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/22/03- 12/20/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|                                                                                                                                                        | 6) <input type="checkbox"/> Other: ____ .                                   |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Umeda et al. JP Patent No. 2000092766A.

Umeda disclose segment joined armature for a multi-phase ac machine comprising an armature core (32) having slots, q (= integer greater than two or more) for each pole in each phase, the slots being arrayed in a circumferential direction of said armature core (32) and an armature winding made up of m (= integer greater than three or more) phase coils, each of the phase coils being made up of a first phase winding and a second phase winding which are identical in number of turns and extending in opposite winding directions, wherein each of the first and second phase windings is made up of at least one wave winding (312, 324) segment and lap winding (311, 313) segments joined alternately, the wave winding segment (312, 324) and the lap winding (311, 313) segments being formed by sequentially joined-conductor segments, each of the conductor segments (331-333) including a substantially V-shaped head portion, a pair of leg portions extending from ends of the head portion, disposed in two of the slots of said armature core located at a given interval away from each other, and a pair of joint end portions extending from ends of the leg portions, s (= integer greater than four

or more) of the leg portions being arrayed within each of the slots of said armature core (32) in a radius direction of said armature core, each of the joint end portion of each of the conductor segments being joined to one of the joint end portions of another of the conductor segments to make each of the first and second phase windings, wherein the wave winding segment is made up of the conductor segments having the leg portions located at an interval away from each other which is greater than or equal to one pole pitch, each of the lap winding segments being made up of the conductor segments having the leg portions located at an interval away from each other which is less than one pole pitch, and wherein an end of the first phase winding and an end of the second phase winding are formed by two of the leg portions of the conductor segments which are disposed adjacent to each other in the radius direction within the same one of the slots of said armature core and which lead to two first terminal leads, and the other end of the first phase winding and the other end of the second phase winding are formed by two of the leg portions of the conductor segments which are disposed adjacent to each other in the radius direction within the same one of the slots of said armature core (32) and which lead to two second terminal leads (for example see fig. 4-8).

***Allowable Subject Matter***

Claims 2-27 and 29-54 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The Prior Art does not show alone or in combination a segment joined armature for a multi-phase ac machine, wherein four of the leg portions of the conductor segments are arrayed within each of the slots of said armature core as a first, a second, a third, and a fourth layer conductors from inside to outside said armature core in the radius direction of said armature core, wherein each of the first and second phase windings are broken down into a first and a second group, the first group being made up of the conductor segments having the first and fourth layer conductors separated from each other at a given slot pitch, the second group being made up of the conductor segments having the second and third layer conductors separated from each other at a given slot pitch, wherein tips of the joint end portions leading to the first layer conductors are joined to tips of the joint end portions leading to the second layer conductors, and tips of the joint end portions leading to the third layer conductors are joined to tips of the joint end portions leading to the fourth layer conductors, wherein the wave winding segment is made up of the conductor segments each having the tips of the joint end portions separated from each other at an approximately two pole pitch, and each of the lap winding segments is made up of the conductor segments each having the joint end portions separated from each other at an approximately zero slot pitch, and wherein the first and second layer conductors or the third and fourth layer conductors defining ends of the first and second phase windings of each of the phase coils disposed within the same one of the slots lead to paired first terminal leads, respectively, and the third and fourth layer conductors or the first and second layer conductors defining other ends of

the first and second phase windings of each of the phase coils disposed within the same one of the slots lead to paired second terminal leads, respectively.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yahveh Comas whose telephone number is (571) 272-2020. The examiner can normally be reached on 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YC

